**TNP-400**

Telemetry Network Processor

**High Performance, low latency leader.**

IPtec specializes in facilitating high performance, low latency services over IP networks.

IPtec provides reliable, high quality products for low latency video and telemetry services. These products enable customers to transport high quality video and telemetry signals over IP networks.

http://www.iptec-inc.com

**High speed Telemetry transmission**

The TNP-400 is a telemetry over IP (TMoIP) compliant multiplexer/de-multiplexer system enabling transparent, low latency transfer of very high speed digital telemetry over IP networks. The TNP-400 packetizes telemetry data and PCM data and transfers the packets across an IP network. Another TNP-400 is used to reconstruct the telemetry and PCM data to its original state.

The TNP-400 provides IP Network Processing for up to two 400 Mb/s ECL digital telemetry signals (clock and data). Each telemetry data interface may be programmed as an input or output enabling dual channel or full duplex data transmission.

**Network Interface**

The TNP-400 is equipped with one optical (1/10Gb/s) and two electrical network interfaces, supporting BT-10/100/1000Mbps. Multiple switched Ethernet interfaces provide flexible installation and interconnectivity options.

**Diagnostics Tools**

The TNP-400 provides statistics data and diagnostics tools for network installation and troubleshooting. The tools include test pattern generation and Bit Error Rate Testing (BERT).

**Superior Performance**

The TNP-400 supports individual port timing recovery, using adaptive clock techniques to regenerate source timing information. The user may optimize operation for different networks and applications by configuration. An optional rate independent, flat line equal latency response feature guarantees fixed delay on all ports.

**Powerful Management**

The TNP-400 is remotely manageable via a standard WEB interface and SNMP. Performance monitoring and system configuration capabilities facilitate installation and management in large networks.
The TNP-400 provides a flexible solution for high speed telemetry transmission. The system is user configurable to support one-way transmission as well as full duplex operation.

The TNP-400 is a COTS solution that enables transmission over optical fiber infrastructures as well as standard Ethernet Networks with SFP support for short, long, and CWDM wavelength optical transceivers.

The system supports (one-way) single fiber operation and (two-way) two fiber operation.

The built-in Ethernet Switch enables additional aggregation multiplex capabilities by daisy-chaining of multiple TNP-100/200/300/400 units allowing for higher fiber utilization.

The TNP-400 provides LAN extension for Two 1Gbs services between local and remote sites.

### TNP-400 Overview & Features

**Multi-Function Interface**
- 2 Multi-Service Ports

**Telemetry Input/Output (User configurable)**
- Density: 8 BNC connectors (Clock & Data), Format: Balanced ECL terminated 50 Ohms to –2V
- Data rate up to 1-400Mb/s.

**Remote Management**
- Built-in Web-based GUI and SNMPv2 and v3

**Ethernet Network Interface**
- One pluggable SFP module. 1000/10000Base-X CWDM SFP’s are also supported.
- Two RJ45.10/100/1000Base-T

### TNP-400 Technical Specifications

**Physical Dimensions**
- 1RU, ½-width 19”. Two units fit in a 19”: (H x W x D) 1.75” x 8.50” x 10.00” (4.45 x 21.59 x 25.54) cm

**Environmental Conditions**
- Operating Temperature: 0 to 40°C (32F to 104F)
- Storage Temperature: -40 to 70°C (-40F to 158F)
- Relative Humidity: 5% to 90% (Non Condensing)

**Power**
- 100 – 264V AC (47 – 63Hz)< 30W